

B7 series lighting board assembly guide

- version 0.0.3 –



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Please read this manual carefully before carrying out the installation!!! Although our products are very robust, incorrect wiring may destroy the module!

During the operation of the device the specified technical parameters shall always be met. At the installation the environment shall be fully taken into consideration. The device must not be exposed to moisture and direct sunshine.

A soldering tool may be necessary for the installation and/or mounting of the devices, which requires special care.

During the installation it shall be ensured that the bottom of the device should not contact with a conductive (e.g. metal) surface!



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1. Required tools

- tweezer
- screwdriver
- cutting plier
- cutter
- soldering station
- 1-1.2 mm drill bit with holder
- small file

2. Required materials

- B7 lighting kit
- adhesive tape
- soldering wire

3. Disassembly of the coaches

Pull the housing in side direction at the indicated points and lift it above the base. Remove the housing from the body of the unit.

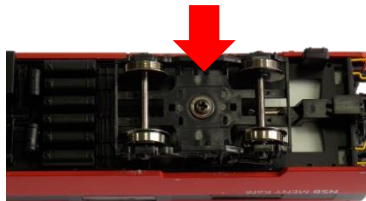
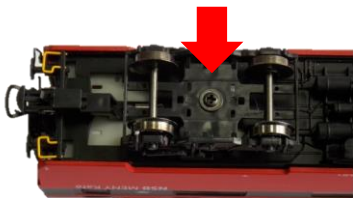


Inserting your thumb nails in the boogie area between the housing and the base might help.

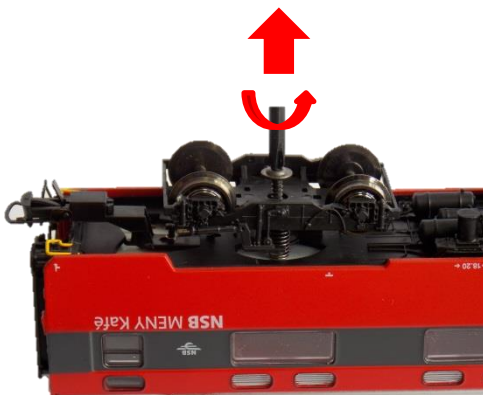
The B7 Series coaches have different interior design. In the picture below the coach with the B7 27030 road number can be seen (article number 122.206).



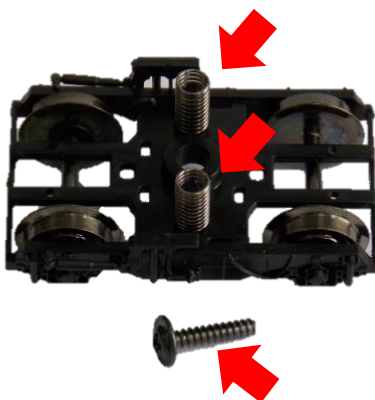
Both boogies of the coach have to be removed.



Release the holding screws as indicated in the picture below. Use a small size screwdriver.

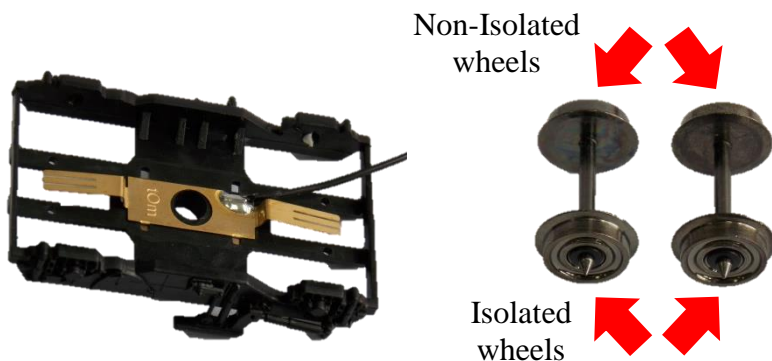


While removing the boogie from the carriage, preserve the 2 springs and the screw for later use.



4. Installing the current pickups and the lighting board

Remove the 2 axle pairs from each boogie, and insert the current pickups with the factory attached wires. Match the 4 folded ears to the holes of the boogie.

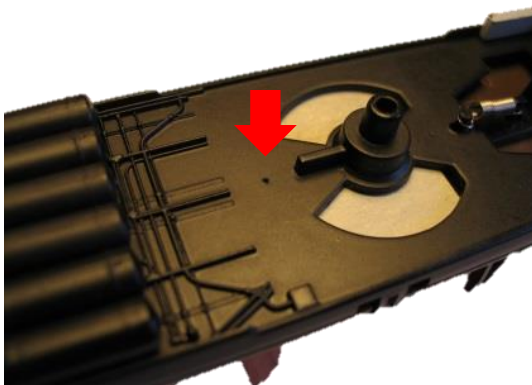


Insert the 2 axle pairs back to the boogie. On each boogie, the isolated wheels must be on the same side, and on the two boogies they are mirrored. Only with this wheel arrangement is possible to collect both polarities of the DC/DCC signals from the track.



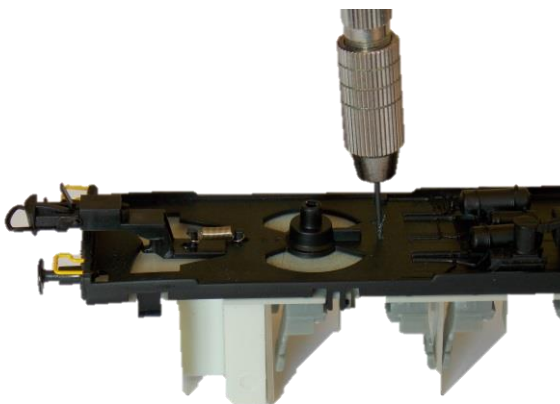
Improper axle arrangement can lead to short circuit on the track (axes on the same boogie with opposite polarity) or unpowered lighting board (opposite boogies with un-mirrored axles).

On each end of the bottom of the carriage base there is a small insert made for technological reasons in the molding tool. These must be drilled, and the connecting wires will be lead thru them to the interior of the carriage.



Right end of
the carriage

Use a 1-1.2 mm drill bit and holder. The hole will fit perfectly between the 2 metal pates in the bottom of the body.



Left end of the
carriage

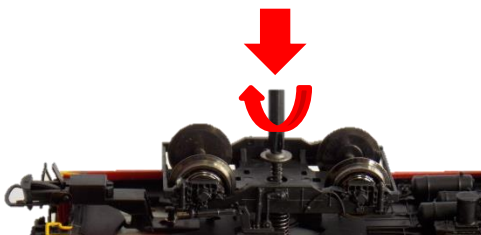
Insert the wires of the current pickups to the previously drilled holes and lead them to the interior of the carriage. Assemble the boogie and the 2 springs to the carriage body.



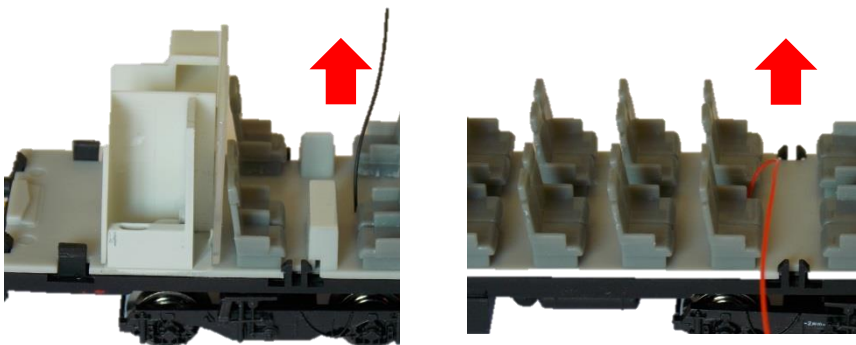
Insert the two washers contained in the package over the screw before fixing the boogie. Depending on the screw size, the internal diameter of the washers may need minor adjustments. This can be done using a small file.



Using a small size screwdriver fasten the boogie to the carriage base. The boogie should rotate freely around its central position due to the two washers.



Retract the wires through the drilled holes to the interior of the carriage in such a way to ensure that the boogies will rotate freely even on the smallest radius. The wires must be not visible underside of the carriage.

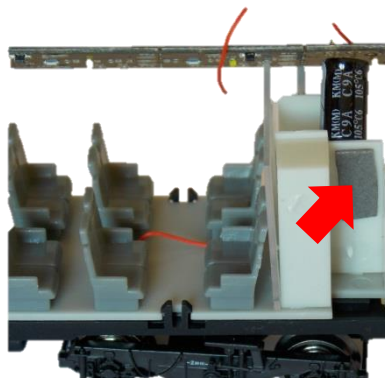
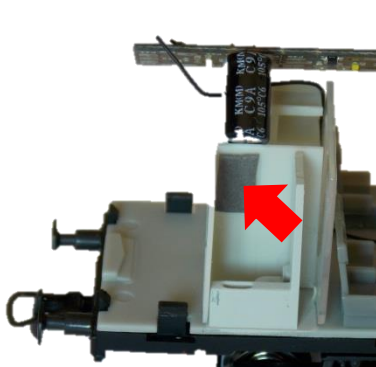


The B7 series carriages are manufactured with various interior arrangements. Install the storage capacitor to the lighting board as it is described in the Shine Plus Maxi manual, and connect the wires from the current pickups to the board. There are several possible locations for the capacitors which will fit all of the B7 series carriages.

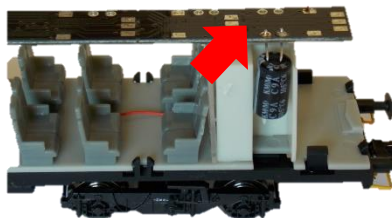
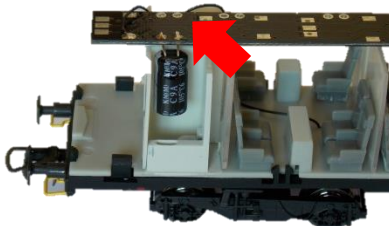
In some cases the Shine Plus Maxi boards have to be shortened as it is described in the manual to fit in the housing.



Usually the storage capacitor will fit to the toilets of the carriages. The extra wires can be shortened, or can be masked inside the carriage. Place a small piece of double adhesive tape on the interior, under the contact surface of the capacitors.



The double adhesive tape will hold in place the lighting board. Using plastic supports (PS Shine) to hold the lighting board is also possible.



After the lighting board is placed in position the housing can be assembled to the carriage base. In the illustration below the coach with the B7-3 22779 road number can be seen (article number 124.301) before the final assembly.



The lighting boards can be used in DC and DCC systems. For connection details and programming the board functions please read the Shine Plus Maxi Digi User Manual.



5. Notes

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